Notice of Allowability	Application No.	Applicant(s)	
	09/500,387	LEE, TED CHONGPI	
	Examiner	Art Unit	
	Duc C. Ho	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the amendment filed 03-21-05*.

2. ☒ The allowed claim(s) is/are *1-17*.

3. ☒ The drawings filed on *27 January 2004* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *06-08-05* .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER 'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Eamon J. Wall on 06-08-05.

The application has been amended as follows:

In the claims:

Claim 11, line 3, before "SONET", insert --- non-homogeneous ---.

Claim 11, line 4, after "said", insert --- non-homogeneous ---.

Claim 11, line 11, before "SONET ring", insert --- non-homogeneous ---.

Reason for Allowance

2. Regarding claims 1-5, the prior art fails to teach or suggest in a communication system utilizing a digital cross-connect system (DCS) element management system (RMS) for managing DCS network elements and a SONET EMS for managing SONET add/drop multiplexer (ADM) network elements, apparatus comprising at least one of the plurality of DCS elements including an ADM of the plurality of ADMs that is logically coupled to the non-homogeneous SONET ring network, the ADM being virtually coupled to the at least one DCS by a digital link, such that the non-homogeneous SONET ring network including the plurality of ADMs is managed by

the SONET EMS, so that the respective DCS and SONET EMSs manage the hybrid ring structure in a manner that avoids logically decomposing the SONET network elements of the non-homogeneous SONET ring networks into one or more SONET arcs, in combination with other limitations, as specified in the independent claims 1, and 4.

Regarding claims 6-7, the prior art fails to teach or suggest a hybrid digital cross-connect system (DCS)/SONET integrated SONET ring structure, comprising at least one of the ADMs forming the SONET ring is included within an input/output module of a hybrid DCS, the input/output module further comprising a DCS port operatively coupled to the ADM via a virtual digital link, so that the respective DCS and SONET EMSs manage the hybrid ring structure in a manner that avoids logically decomposing the ADMs in the ring topology into one or more SONET arcs, in combination with other limitations, as specified in the independent claim 6.

Regarding claims 8-10, the prior art fails to teach or suggest an apparatus comprising a SONET ring formed using at least one add-drop multiplexer (ADM) included within a hybrid digital cross-connect system (DCS), so that the SONET EMS manages the ring structure in a manner that avoids logically decomposing the SONET network elements of the ring structure into one or more SONET arcs, in combination with other limitations, as specified in the independent claim 8.

Regarding claims 11-12, the prior art fails to teach or suggest in a communications system comprising a digital cross-connect system (DCS) including a SONET add/drop multiplexer (ADM), a method of utilizing the ADM as a network element within a non-homogeneous SONET ring such that the non-homogeneous SONET ring may be managed as a homogeneous SONET ring structure by a SONET element management system, the method

comprises the step utilizing the logical ADM network element within the non-homogeneous ring as a network element being managed as part of the homogeneous SONET ring structure by the SONET element management system in a manner that avoids logically decomposing the SONET network elements of the ring structure into one or more SONET arcs, in combination with other limitations, as specified in the independent claim 11.

Regarding claims 13-16, the prior art fails to teach or suggest a method for adapting a communications network comprising the steps of decoupling, from the determined DCS/SONET network structures, those ADMs used to form hybrid ring networks, and managing the hybrid ring networks as network ring structures using a SONET element management system (EMS) so that the SONET EMS manages the hybrid ring networks in a manner that avoids logically decomposing the SONET network elements of the hybrid ring networks into one or more SONET arcs, in combination with other limitations, as specified in the independent claim 13.

Regarding claim 17, the prior art fails to teach or suggest a method for adapting a communications network comprising the steps of decoupling, from the determined DCS/SONET network structures, those ADMs used to form hybrid ring networks; managing, using a DCS element manager, DCS network elements within the network to be managed; managing, using a SONET element manager, ADMs within the network to be managed, wherein ADMs forming ring structures being managed as homogeneous network ring structures so that the respective DCS and SONET element manager manage the hybrid ring networks in a manner that avoids logically decomposing the ADMs of the hybrid ring networks into one or more SONET arcs, in combination with other limitations.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Friday from 7:00 am to 3:30 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

Duc Ho

06-08-05